



2023 Nesting Season Executive Summary

**All data subject to change.*

The 2023 sea turtle nesting season on Bald Head Island (BHI) was highlighted by the deployment of four satellite tags on nesting turtles and surpassing the 100-nest mark for the fourth time in the last five seasons. The Bald Head Island Conservancy's (BHIC) Sea Turtle Protection Team (STPT) patrolled the beaches of BHI for 168 days/nights (35 dawn, 60 partial nights, and 72 full nights), observing 122 nests, of which 46 (37.7%) were relocated, and 220 false crawls. The first nesting activity occurred on 15 May and the last on 18 August. For the first time since 2013, the STPT recorded 3 green sea turtle (*Chelonia mydas*) activities that included one nest and two false crawls. At least 63 genetically distinct females were responsible for the 342 nesting activities observed. The STPT also observed the return of 9 Legacy turtles (*Billie, Fluffy, Gigi, Granny, Mary Jane, Sandy, Scarlett, Thomasina, & Turquoise*) and named 2 new Legacy turtles (*Lee Ann & Strawberry*). The first hatching event was observed on 30 July, while the last nest was excavated on 25 October. The average incubation time for the 122 nests was 55.2 days. Approximately 13,588 eggs were laid on BHI, with an estimated 10,104 hatchlings making it to the water. Mean hatch success was 79.9%, while mean emerge success was 70.2%. Our most productive mom was a vagabond remigrant, FFK802, who laid 657 eggs that produced 530 hatchlings. Our most efficient mom was Billie, with a hatch success of 96.4% and an emergence success of 94.1%. With a highly active Atlantic hurricane season, BHI was fortunate to have lost only one nest to Hurricane Idalia. However, a total of 30 nests were impacted by a combination of hurricanes, tropical storms, and king tides. Additionally, one nest fell victim to coyotes, and a total of 10 nests were affected by a mixture of island predators, accounting for the loss of 442 eggs (3.2%).

The STPT embarked on two projects this season. First, we deployed four satellite tags, outfitting KKD855, KKK238, Sandy, and Scarlett, to better understand post-nesting migration. This project aims to enhance our understanding of their movements across different habitats, including proposed wind farm properties. Second, in collaboration with UNCW post-doctoral researcher Dr. Matt Ware, we are investigating the impact of environmental parameters on nesting habitat suitability and distributions.

This research reflects the Conservancy's commitment to comprehensive conservation efforts. All sea turtle monitoring and research were performed pursuant to North Carolina Wildlife Resources Commission Endangered Species Permit #23ST14.



KKK238 returning to the ocean after being outfitted with a satellite tag.